

REMARKS

A. Request for Reconsideration

Applicants have carefully considered the matters raised by the Examiner in the outstanding Office Action but remain of the position that patentable subject matter is present. Applicants respectfully request reconsideration of the Examiner's position based on the Terminal Disclaimer, the amendments to the claims and the following remarks.

B. Claim Status and Amendments

Claims 1-4, 6 and 10-13 are presented for further prosecution.

Claims 1 and 6 have been amended to delete the term "organic". Claim 1 has also been amended to recite that the dopant is an electron trapping dopant and that the dopant is a chalcogen or nitrogen containing organic compound, as suggested by the Examiner. Support for this amendment can be found on page 19, lines 14-15 and 22-23 which state that the dopant is an electron trapping dopant and a "chalcogen or nitrogen containing organic" compound.

Although the Office Action had been made final, Applicants respectfully request entry of this amendment since this amendment was suggested by the Examiner to overcome a § 112 rejection and because it is deemed that the scope of the claim has not been changed. It is therefore believed that the amendment does not raise new issues and that a further search is not required.

C. Rejections under § 112 and Specification Objections

Claims 1-4, 6 and 10-12 had been rejected for failing to comply with the written description requirement. Claims 1-4, 6 and 10-13 had been rejected as indefinite. The specification had also been objected to for not describing the claimed subject matter. In each instance, the Examiner had stated that the specification does not describe the "organic" dopant.

Applicants have amended the claims as suggested by the Examiner to state that the dopant is an electron trapping dopant and that the dopant is a chalcogen or nitrogen containing organic compound. Page 19, lines 22-23 of the application explain that the dopant is a chalcogen or nitrogen containing organic or inorganic compound. Applicants have chosen to limit the dopant to an organic dopant and for clarification, Applicants have amended claim 1 to recite the specific language appearing on page 19 as suggested by the Examiner, namely, that

the dopant is an electron trapping dopant and is a "chalcogen or nitrogen containing organic compound".

Applicants respectfully submit that the amendments made to claim 1 are supported in the specification and that the claims are not indefinite.

D. Rejections under § 103(a)

Claims 1-4, 6 and 10-13 had been rejected as being unpatentable over De Keyzer (US 6,277,549) in view of either Fukui (US 2002/0102502) or PS '266. Claim 13 had been rejected as being unpatentable over De Keyzer in view of Fukui or PS '266, and in further view of Oyamada (EP 0962812). Claims 1-13 had been rejected as being unpatentable over Takiguchi (US 2003/0203323) in view of either Fukui or PS '266.

1. De Keyzer's dopant releases electrons and there is no teaching that electron releasing dopants are equivalent to electron trapping dopants

De Keyzer has been cited to teach a photothermographic material having an organic dopant that is incorporated into the silver halide during growth (col. 3, lines 56-64).

Applicants agree about the location of the dopant, however, the dopant of De Keyzer is an electron releasing dopant (col. 3, lines 65-67). As stated in De Keyzer, these

"compounds...release...at least one, mostly two, or generally a certain amount of two electrons." This teaching is in direct contrast to the present invention, wherein the dopant is an electron trapping dopant, i.e., a compound that traps electrons inside the grains.

Since the claims recite that the dopant is an electron trapping dopant that traps electrons inside the silver halide grains, it is submitted that the claims define over De Keyzer.

Furthermore, it is respectfully submitted that De Keyzer, even if combined with the other cited references, does not teach or suggest the present invention because there is no teaching that an electron releasing dopant is the same or equivalent to an electron trapping dopant. Thus, the claims define over De Keyzer taken alone or in combination with the other cited references.

2. The combination of De Keyzer with either Fukui or PS '266 does not teach a reducing agent and a compound of Formula (1)

De Keyzer had been cited to teach a photothermographic material having a silver salt, a silver halide, a bisphenol reducing agent and a binder (col. 14, lines 40-47 and col. 16, lines 12-17). The Examiner had recognized that De Keyzer does not teach the structure of the bisphenol reducing agent of

Formula 1 of claim 1. Thus, Fukui and PS '266 had been cited to teach a bisphenol reducing agent Formula 1 (see par. 14 of Fukui and page 15 of PS '266). The Examiner had taken the position that it would be obvious to substitute the bisphenol reducing agent of De Keyzer with the bisphenol reducing agent of either Fukui or PS '266 in order to produce the material of claim 1.

The substitution proposed by the Examiner does not produce the material of claim 1. Claim 1 recites a reducing agent and a bisphenol compound of Formula (1). Thus, claim 1 recites two distinct compounds. If the bisphenol reducing agent of De Keyzer is replaced with the bisphenol reducing agent of Fukui or PS '266, the resulting material does not contain a bisphenol reducing agent of Formula 1 and a reducing agent.

Applicants therefore respectfully submit a combination of the teachings of De Keyzer, Fukui and PS '266 does not teach or suggest the present invention.

3. The combination of the organic dopant, reducing agent and compound of Formula (1) is significant

Claim 1 recites that the photothermographic material includes a reducing agent, a compound of Formula (1), and an electron trapping dopant. The criticality of the combination of these compounds is shown in Table 1 on page 98 of the application.

Sample 101 in Table 1 contains a reducing agent (see reducing agent 1 in par. 1 on page 89 which is illustrated on page 91), a compound of Formula (1) (see compound 1-1 in Table 1 which is illustrated on page 8), and an electron trapping dopant (see the final line on page 82). Samples 102-116 were prepared similar to Sample 101, except that the type of emulsion, chemical sensitization and proportion of silver behenate were varied (see page 92, par. 2).

As shown in Table 1, Samples 101-104, 106-109 and 111-113 including a reducing agent, a compound of Formula (1), and a dopant were superior to Sample 105 (no dopant, see emulsion 5 on page 86), Sample 110 (no dopant, see emulsion 5 on page 86), and Samples 114-116 (no compound of Formula (1), see Table 1). Specifically, the samples of the invention exhibited enhanced sensitivity, minimized fog density, superior storage stability and superior image lasting quality. The samples of the invention also exhibited a desirable hue angle which resulted in cold-tone images suitable for medical diagnosis (see page 99, par. 1).

Applicants submit that Table 1 demonstrates the criticality of the combination of the reducing agent, the compound of Formula (1), and the dopant recited in claim 1. The combination of the cited references does not teach or suggest this

criticality. Applicants therefore respectfully submit that the present invention is not obvious over the cited references.

4. Takiguchi and this application have a common owner

The present application was filed on September 8, 2003. Takiguchi was filed on March 5, 2003 and published on October 30, 2003. Takiguchi is therefore prior art under § 102(e) only.

According to § 103(c), subject matter developed by another that is prior art under § 102(e) only shall not preclude patentability under § 103(a) where the subject matter and the claimed invention were subject to an obligation of assignment to the same person at the time the claimed invention was made. Applicants submit that Takiguchi is subject matter by another, and that Takiguchi and the claimed invention were subject to an obligation of assignment to the same person at the time the claimed invention was made.

Applicants respectfully submit that Takiguchi is no longer prior art and the § 103(a) rejection based on Takiguchi with Fukui or PS '266 is overcome.

5. The double patenting rejection

The provisional obviousness-type double patenting rejection is against claims 1-4, 6 and 10-13 as being unpatentable over

claims 1, 15 and 17 of Takiguchi in view of either Fukui or PS '266.

Applicants have enclosed a Terminal Disclaimer to overcome the double patenting rejection. PTO 2038 is also enclosed for the fee.

E. Conclusion

In view of the foregoing and the enclosed, it is respectfully submitted that the application is in condition for allowance and such action is respectfully requested. Should any extensions of time or fees be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account # 02-2275.

Respectfully submitted,

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Encl: Executed Terminal Disclaimer
Executed PTO Form 2038 in the amount of \$130.00
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